

TO: Federal Communications Commissioners Ajit Pai, Mignon Clyburn, Michael O’Rielly

July 13, 2017

Re: WC Docket No. 17-84, WT Docket No. 17-79, WT Docket No. 15-180, regarding 5G

Dear Commissioners,

Please

- Leave landlined (copper and fiber-optic) phone / telecomm systems intact, and restore and leave-in-place all requirements for telecomm corporations continue to support them. They are the only possible communications avenue, for those of us who suffer impracticable bioimpacts from wireless emissions and must do everything we can to keep such electropollution out of our living-spaces. And copper communications lines are particularly essential for emergency communications during power outages (including grid failures due to hacking, such as AMR/AMI/ IoT technologies leave the whole grid wide open to). Copper is independent of electric power; fiber isn’t. (Wireless isn’t either, in the event of large-scale failures.)
- Revise FCC “safety guidelines” for RF and pulsed-RF emissions exposures. The current ones, of
 - “tissue heating only, in a 6’ adult male at 6’ distance for 6 minutes”
 - claim of “safety” based exclusively on studies from 1984 and earlier (i.e., specifically before cellphones came into use)are blatantly ridiculous — as is also allowing the polluting industry to cite these guidelines as “safety STANDARDS.”
Please design and apply new criteria, founded in — for example (attached)—
- <EMF_Revs_54+.pdf>
List of 112 Reviews on Non-thermal Effects of Microwave/Lower Frequency EMFs
Martin L. Pall
- <Wi-Fi7_2017.pdf>
Wi-Fi as a Very Substantial Threat to Human Health.
Martin L. Pall, Professor Emeritus of Biochemistry and Basic Medical Sciences, Washington State University; martin_pall@wsu.edu
February, 2017
- <Comment_of_Martin_L_Pall_FCC-2017.pdf>
- <Plant_EMFs_Pall_2016.pdf>
Electromagnetic Fields Act Similarly in Plants as in Animals: Probable Activation of Calcium Channels via Their Voltage Sensor
Martin L. Pall
Current Chemical Biology, 2016, 10

- Restore states' and local governments' authority to place whatever additional wireless-emissions standards the citizens may find needed. Safety standards (or even guidelines) should be a floor, not a ceiling. The FCC (purported "regulatory agency") has no business aiding and abetting the polluting industry to morph the said guidelines into a ceiling (that designers, planners, consumers, et al, bounce off of — it redirects the whole interaction into a race to the bottom).

RF bioimpacts must be counted in, and not only at a "tissue heating" exposure level. A major avenue of RF/EMF biological harm, at non-thermal exposure levels, has been clearly identified: interference with voltage gated calcium channels (VGCC's). This affects all species that have cell membranes. See, e.g. (attached),

- "How to Approach the Challenge of Minimizing Non-Thermal Health Effects of Microwave Radiation from Electrical Devices" — Martin Pall, Ph.D, International Journal of Innovative Research in Engineering & Management (IJIREM) ISSN: 2350-0557, Volume-2, Issue -5, September 2015 —
<<http://ahappyhabitat.com/docs/martinpall8-2015.pdf>>
- "Scientific evidence contradicts findings and assumptions of Canadian Safety Panel 6: microwaves act through voltage-gated calcium channel activation to induce biological impacts at non-thermal levels, supporting a paradigm shift for microwave/lower frequency electromagnetic field action," Martin Pall, Ph.D —
<<https://www.degruyter.com/view/j/reveh.ahead-of-print/reveh-2015-0001/reveh-2015-0001.xml>>
- "Low intensity microwave frequency electromagnetic fields (EMFs) produce extensive brain damage and widespread neuropsychiatric effects." —
<[http://www.europsy-journal.com/article/S0924-9338\(16\)01914-3/pdf](http://www.europsy-journal.com/article/S0924-9338(16)01914-3/pdf)>
European Psychiatry, March 2016, Martin Pall, Ph.D

Here's part of my June 7, 2017 submission (stating personal experience of RF bioharm) — just as pertinent to Docket No. 17-84 as it was to WT Docket No. 17-79, and WT Docket No. 15-180, regarding 5G:

I've suffered enough ill-effects from the forms of wireless emissions that exist already. I object to all RF-emissions (imposed into our properties and homes without homeowners' informed consent), for reasons of privacy, property rights, and bioimpacts. I object to 5G, for all of these reasons, far more than to all previous forms.

I had to move (in 1986) away from a home (that I loved), because the nearby (9 blocks) broadcast/telecomm facilities' emissions proved too much for me. Effects included sleeplessness, headache, aches and pains (and unsustainability of musculoskeletal alignment), muscle cramps ("charlie horses"), immune and assimilation difficulties, impaired focus/concentration/motivation,... And each time a group visited my home for music practice, everyone would lose rhythm-sense within 10 minutes. We'd take a break for neurological-integration activities (in a hallway sheltered from the broadcast-towers by 5 walls), recover rhythm-sense and resume playing; if we stayed in that sheltered (but cramped) space, we were good for 1/2 hour (before everyone's bar-lines fell apart again); if we instead went back to the front room (with space and nice windows, but unshielded), we were only good for 10 minutes. (The signals in that space were noticeable through equipment too: we couldn't play an LP without hearing also broadcast voices through the speakers.)

Once I moved (to a suburb without broadcast towers for miles, or celltowers for a mile — and that one's down over a hill, no line-of-sight), I regained good sleep, structural sustainability, concentration, and other aspects of health, for 13 years — till, in 1999, PSE installed "smart" meters (AMR) on the neighborhood and my house. I was busy, couldn't think about another thing, assured myself it would be OK; but by 3 am the first night, I found out it was NOT OK — right back to the same problems as before I moved, plus a tremor (I used to be able to draw and write competently; now I can't), impaired eyesight, tinnitus, and nosebleeds.

The rare times I get to visit and sleep in a more electropeaceful space (free of "smart" meters (AMR or AMI), cell arrays, WiFi — not to mention broadcast towers) — even one night has obviated my otherwise-necessary digestive supplements (i.e., allowed my system to resume its own manufacture of appropriate enzymes) and reduced the tinnitus. All the difficulties resume within hours of return to the "smart"-metered space (let alone attempting to sleep here — my system doesn't get to engage in the normal assimilation-and-repair processes that bodies were designed to use every night's sleep *for*).

I've spent unconscionable time and money in search of mitigations. Some help noticeably, some don't, but none (each or cumulatively) are sufficient — let alone sustainably sufficient, as the number, kinds, and intensities of emissions keep rising.

All the ill-effects that I experience are well-explainable in terms of VGCC's disruption.

There is no longer a reliably safe (electropeaceful) place for me to move to; and your 5G plan will ensure that there will no longer be safe places for me to go even temporarily.

All life-forms have cell-membranes and depend on VGCC's functions. RF affects all life-forms (the planet's wealth and eco-balance of biodiversity — and the humans who haven't yet recognized the connection) — not only the few humans who are actually noticing the discomforts —> correlation and speaking up, being "canaries" for all.

This is our lives, not just a computer game. PLEASE halt 5G — PLEASE don't make the planet any more uninhabitable than the FCC (on my tax dollars), and the polluting industry the FCC is appointed to govern, have already made it! PLEASE instead

- support correction of the Telecomm Act of 1996, to ALLOW states and local governments' authority over wireless installations' sitings, INCLUDING apropos of bioimpacts,
- LEAVE INTACT at least current requirements to notify the public of installations; and
- correct RF safety criteria, to
 - take account of all research (not just corporate-funded research) SINCE 1984 (when, for instance, cellphones first came into use)
 - recognize bioimpacts at non-thermal exposure levels, long-term (not just "6 minutes at 6' distance") and for people of all ages and sizes (not just "6' adult male"), and
 - establish such criteria as rules, not just "guidelines."

Sincerely,



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Filed from my landlined computer.